FIG. 1

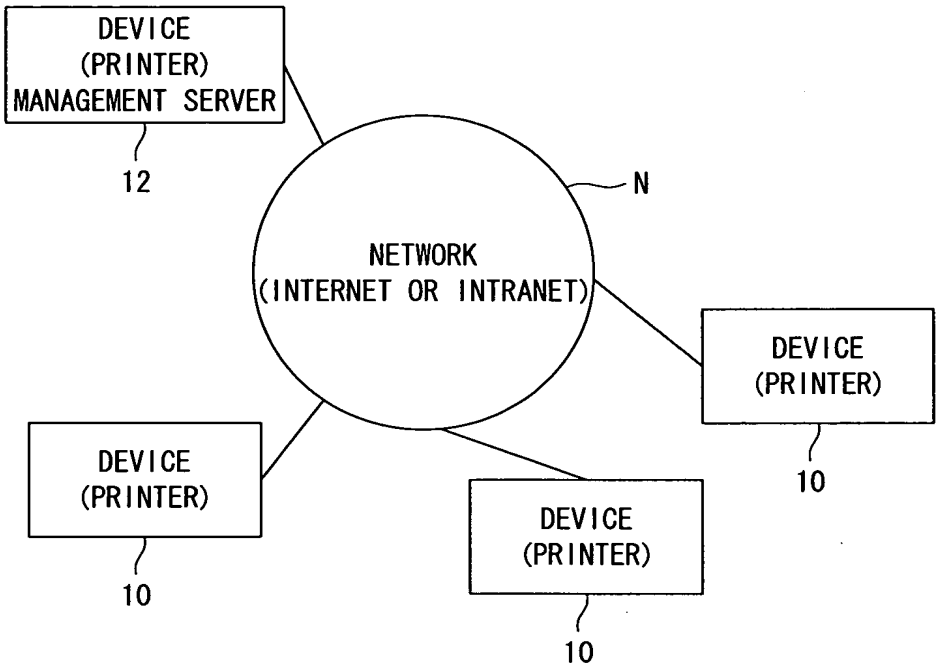

DEVICE
(PRINTER)
MANAGEMENT SERVER
12
N
NETWORK
(INTERNET OR INTRANET)
DEVICE
(PRINTER)
10
DEVICE
(PRINTER)
10
DEVICE
(PRINTER)
10

FIG. 2

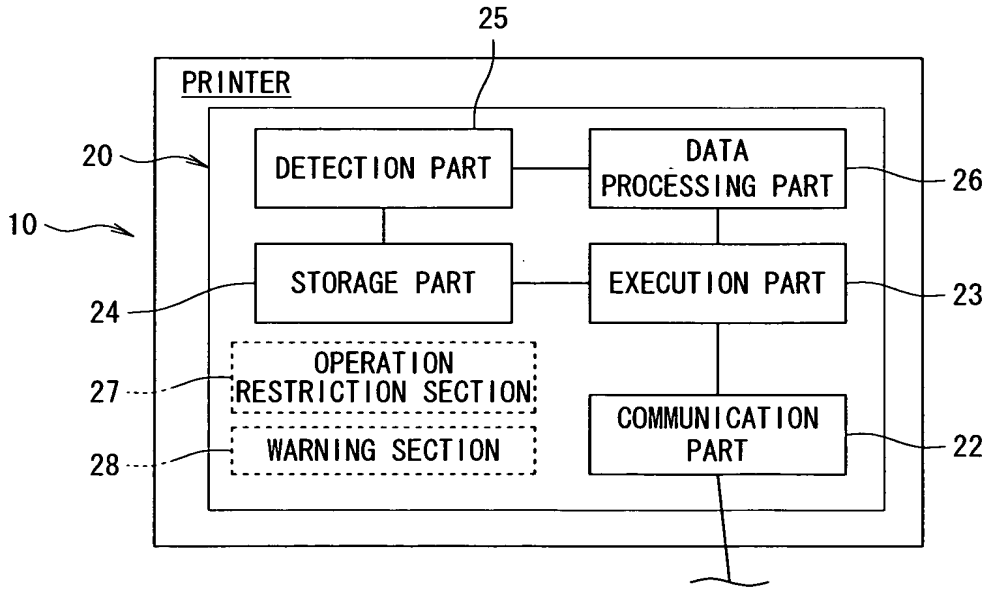

25
PRINTER
20
10
DETECTION PART
DATA
PROCESSING PART
26
STORAGE PART
EXECUTION PART
24
23
OPERATION
RESTRICTION SECTION
27
WARNING SECTION
28
COMMUNICATION
PART
22

FIG. 3

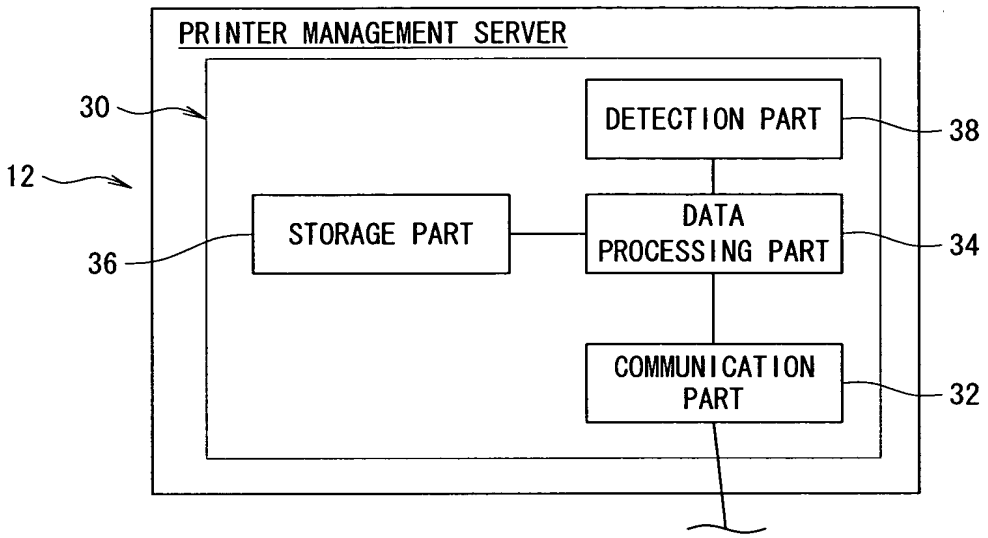

PRINTER MANAGEMENT SERVER
30
12
36
DETECTION PART
38
STORAGE PART
DATA PROCESSING PART
34
COMMUNICATION PART
32

FIG. 4

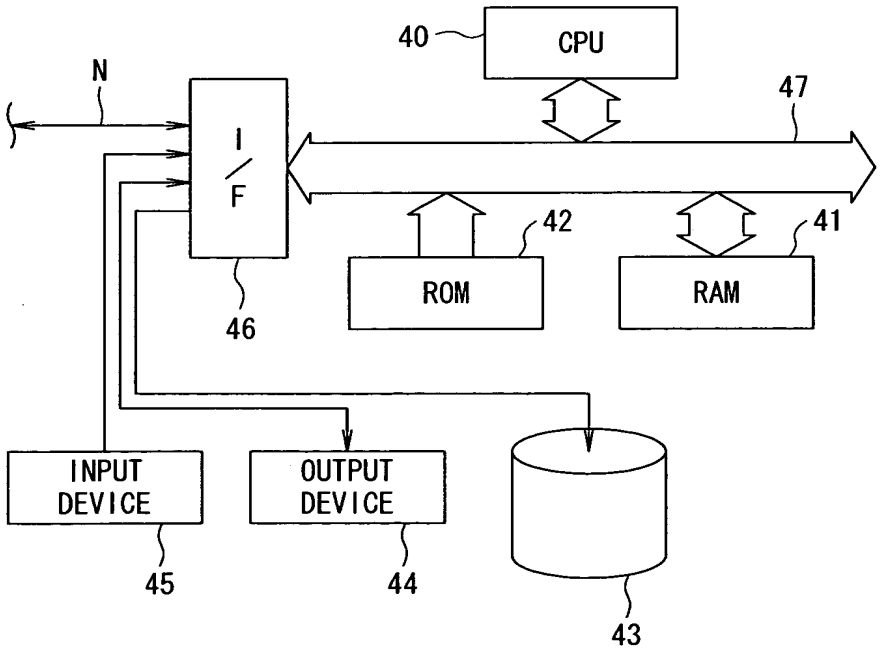

40
CPU
N
I/F
47
42
41
ROM
RAM
46
INPUT DEVICE
OUTPUT DEVICE
45
44
43

FIG. 5

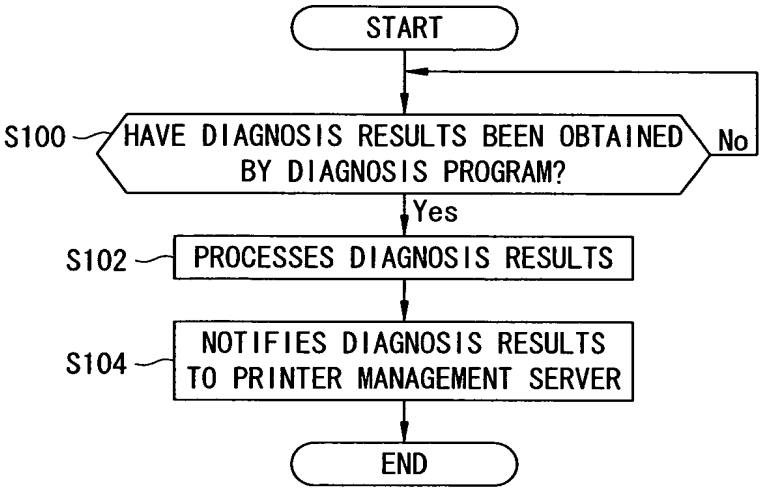

START
S100
HAVE DIAGNOSIS RESULTS BEEN OBTAINED BY DIAGNOSIS PROGRAM?
No
Yes
S102
PROCESSES DIAGNOSIS RESULTS
S104
NOTIFIES DIAGNOSIS RESULTS TO PRINTER MANAGEMENT SERVER
END

FIG. 6

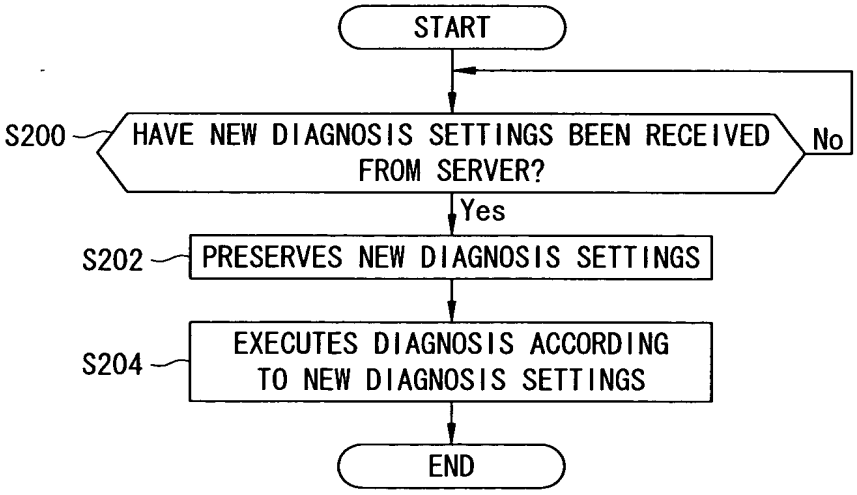

START
S200
HAVE NEW DIAGNOSIS SETTINGS BEEN RECEIVED FROM SERVER?
No
Yes
S202
PRESERVES NEW DIAGNOSIS SETTINGS
S204
EXECUTES DIAGNOSIS ACCORDING TO NEW DIAGNOSIS SETTINGS
END

FIG. 7

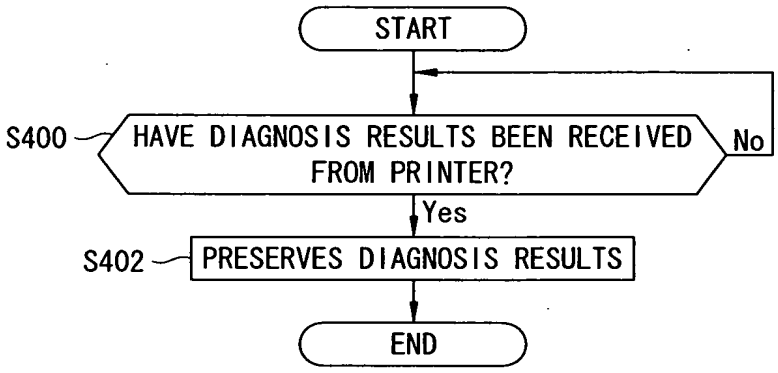

START
S400
HAVE DIAGNOSIS RESULTS BEEN RECEIVED FROM PRINTER?
No
Yes
S402
PRESERVES DIAGNOSIS RESULTS
END

FIG. 8

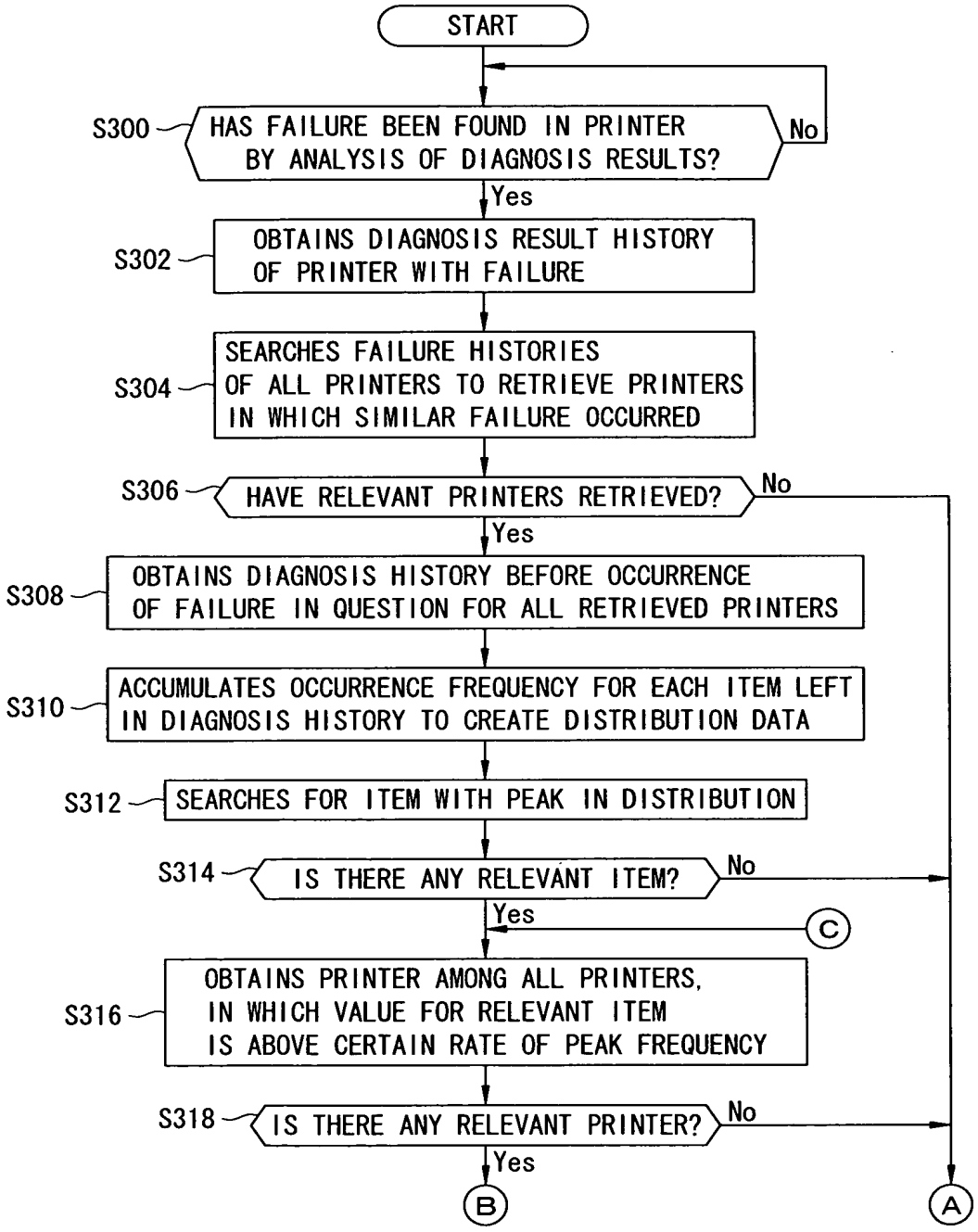

START
S300
HAS FAILURE BEEN FOUND IN PRINTER BY ANALYSIS OF DIAGNOSIS RESULTS?
No
Yes
S302
OBTAINS DIAGNOSIS RESULT HISTORY OF PRINTER WITH FAILURE
S304
SEARCHES FAILURE HISTORIES OF ALL PRINTERS TO RETRIEVE PRINTERS IN WHICH SIMILAR FAILURE OCCURRED
S306
HAVE RELEVANT PRINTERS RETRIEVED?
No
Yes
S308
OBTAINS DIAGNOSIS HISTORY BEFORE OCCURRENCE OF FAILURE IN QUESTION FOR ALL RETRIEVED PRINTERS
S310
ACCUMULATES OCCURRENCE FREQUENCY FOR EACH ITEM LEFT IN DIAGNOSIS HISTORY TO CREATE DISTRIBUTION DATA
S312
SEARCHES FOR ITEM WITH PEAK IN DISTRIBUTION
S314
IS THERE ANY RELEVANT ITEM?
No
Yes
C
S316
OBTAINS PRINTER AMONG ALL PRINTERS, IN WHICH VALUE FOR RELEVANT ITEM IS ABOVE CERTAIN RATE OF PEAK FREQUENCY
S318
IS THERE ANY RELEVANT PRINTER?
No
Yes
B
A

FIG. 9

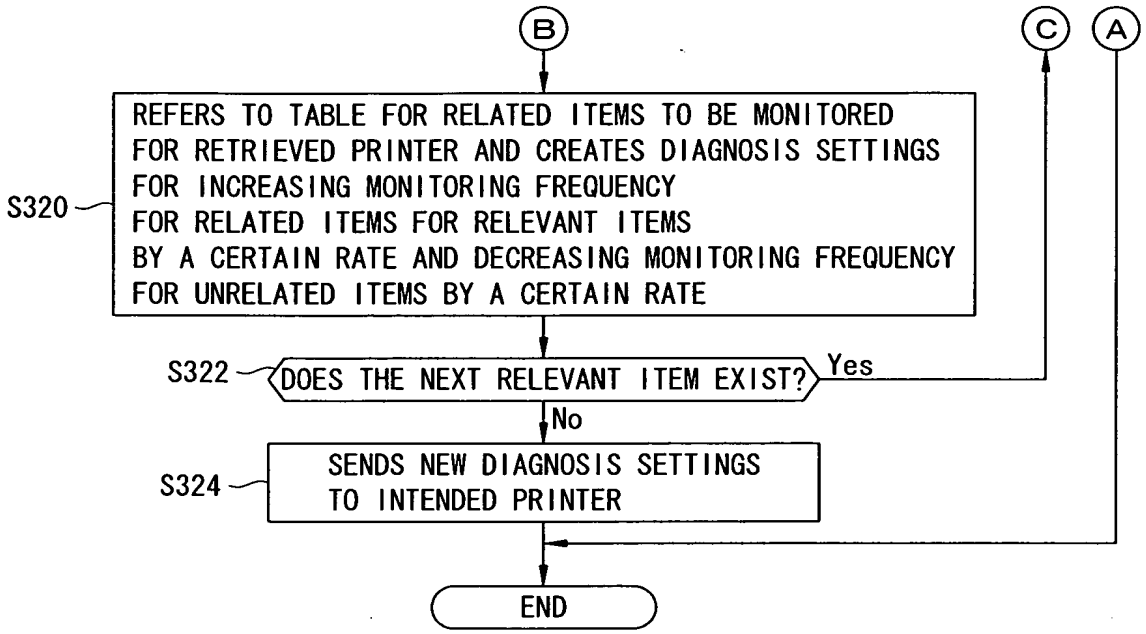


FIG. 10

	POSITION TO BE DIAGNOSED	RELATED EVENT	VALUE
100	FEEDING CONDITION	NO PAPER	ACCUMULATED FREQUENCY
101	JAM A	COVER A OPEN	ACCUMULATED FREQUENCY
102	JAM B	COVER B OPEN	ACCUMULATED FREQUENCY
103	FEEDER	FEEDER OPEN	ACCUMULATED FREQUENCY
104	DISCHARGER	DISCHARGER OPEN	ACCUMULATED FREQUENCY
105	FEEDING MOTOR	MOTOR TEMPERATURE	NUMBER OF TIMES THRESHOLD TEMPERATURE 100℃ WAS EXCEEDED

FIG. 11

TIME	DESCRIPTION
11/09/2002 09:10	JAM A ERROR
11/09/2002 10:10	JAM A ERROR
11/09/2002 12:10	COVER A OPEN
11/09/2002 20:00	OFF-LINE
11/10/2002 10:10	FEEDER ERROR
11/10/2002 12:30	FEEDING MOTOR TEMPERATURE 60℃
11/10/2002 12:45	FEEDING MOTOR TEMPERATURE 110℃

FIG. 12

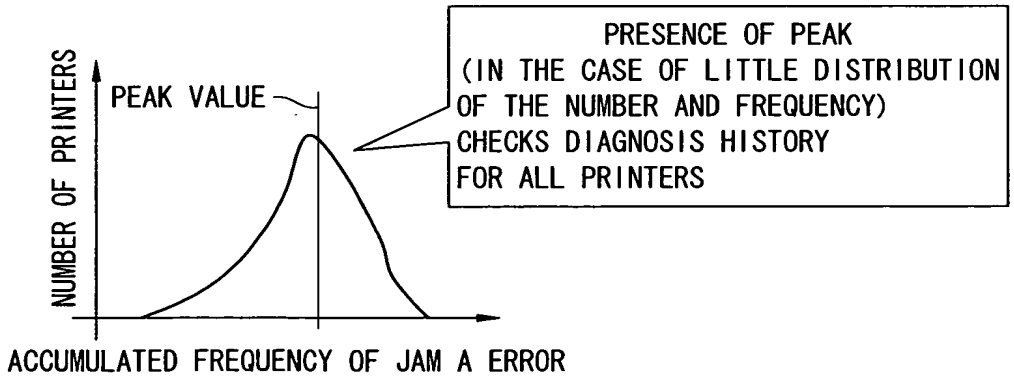


FIG. 13

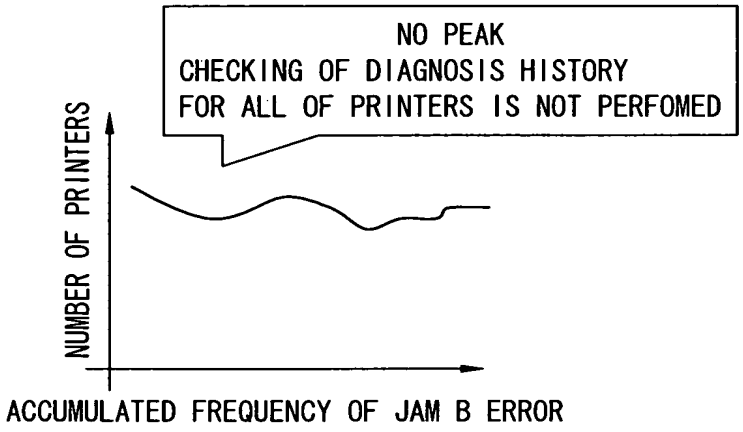

NO PEAK
CHECKING OF DIAGNOSIS HISTORY
FOR ALL OF PRINTERS IS NOT PERFOMED
NUMBER OF PRINTERS
ACCUMULATED FREQUENCY OF JAM B ERROR

FIG. 14

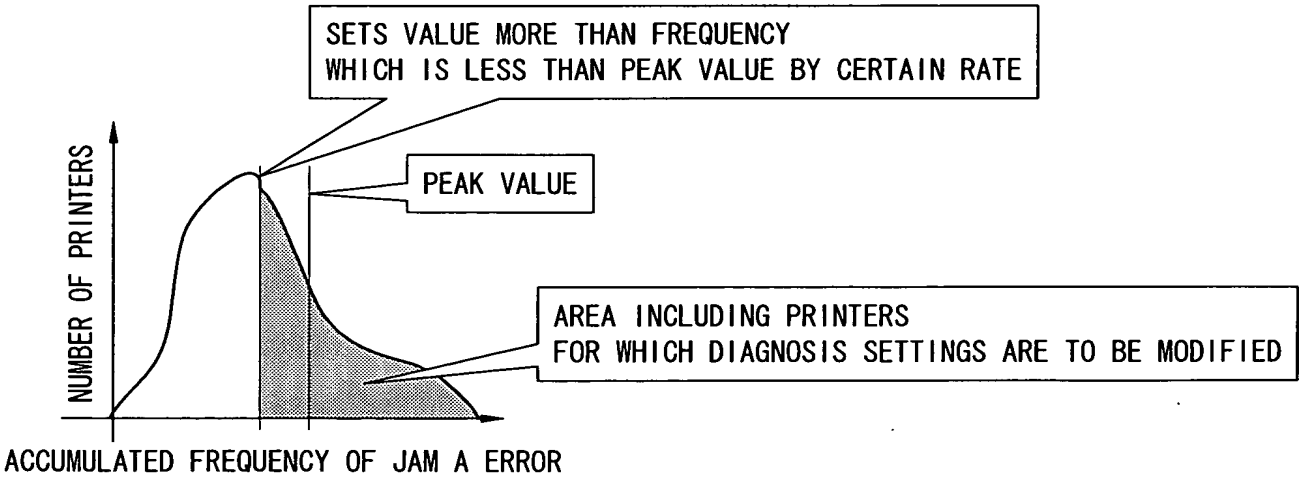

SETS VALUE MORE THAN FREQUENCY
WHICH IS LESS THAN PEAK VALUE BY CERTAIN RATE
PEAK VALUE
AREA INCLUDING PRINTERS
FOR WHICH DIAGNOSIS SETTINGS ARE TO BE MODIFIED
NUMBER OF PRINTERS
ACCUMULATED FREQUENCY OF JAM A ERROR

FIG. 15

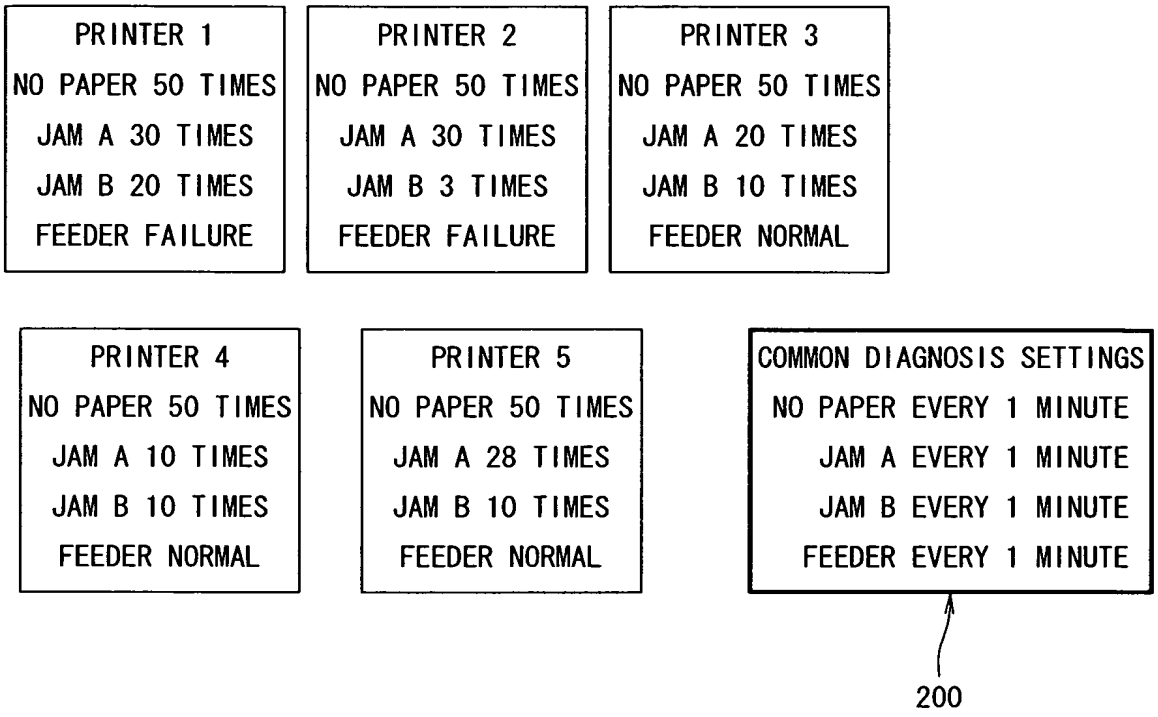


FIG. 16

201

COMMON DIAGNOSIS SETTING	TIME INTERVAL
NO PAPER	EVERY 5 MINUTES
JAM A	EVERY 30 SECONDS
JAM B	EVERY 5 MINUTES
FEEDER	EVERY 30 SECONDS
FEEDING MOTOR	EVERY 1 MINUTE

FIG. 17

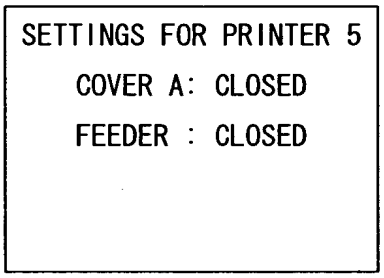
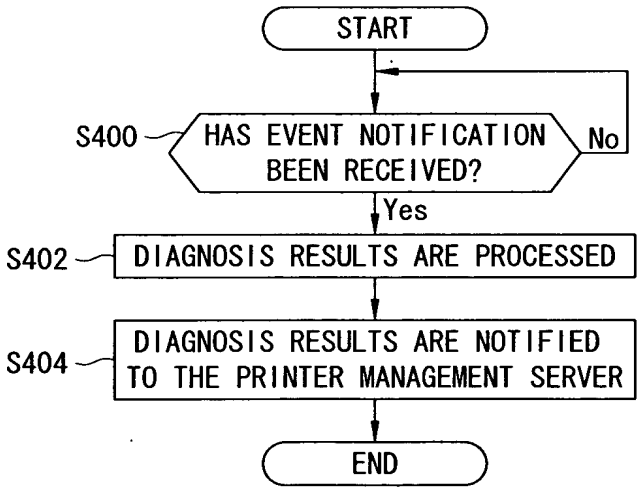

SETTINGS FOR PRINTER 5
COVER A: CLOSED
FEEDER : CLOSED

FIG. 18


START
S400
HAS EVENT NOTIFICATION BEEN RECEIVED?
No
Yes
S402
DIAGNOSIS RESULTS ARE PROCESSED
S404
DIAGNOSIS RESULTS ARE NOTIFIED TO THE PRINTER MANAGEMENT SERVER
END